

The Forward Looking Network Operations Factor is used to adjust expenses that will occur in the future. The factor recommended by AT&T Communications of the South Central States, Inc. and MCI Communications Corporation is 50 percent. The Commission, however, adopts 70 percent. It is unreasonable to expect the ILECs to shed 50 percent of this expense even in a forward-looking competitive market. On the other hand, it is equally unreasonable to assume that the ILECs will be able to compete without dramatically transferring expenses.

The sharing factors for aerial distribution will be set at 48 percent, buried distribution at 85 percent, and underground distribution at 85 percent. It is the Commission's opinion that the future telecommunications landscape will not allow for sharing in excess of these amounts.

The Commission has selected depreciation factors that fall within the ranges approved by the FCC, but notes that, although the factors selected are reasonable for the purposes of initializing a USF, certain factors may not reflect truly forward-looking competitive rates.

GCG recommended that the cost of underground and buried excavation and restoration be modified on a Kentucky-specific basis. In its analysis, the Commission notes that on a weighted average basis, the GCG's recommendation is lower than the default but increases the universal service cost. However, when GCG inputs are allocated to all input fields, the universal service cost tracks appropriately. Thus, GCG's recommended trench costs are adopted.

All inputs selected by the Commission are contained in the Appendices attached hereto.

### REVENUE BENCHMARKS

A revenue benchmark, according to the FCC, should be used to calculate federal universal service support, and "[t]he revenue benchmark should take account not only of the retail price currently charged for local service, but also of other revenues the carrier receives as a result of providing service, including vertical service revenue, and interstate and intrastate access revenues."<sup>33</sup> The FCC has provided a detailed discussion of revenue benchmarks.<sup>34</sup> Generally, the ILECs do not support the use of revenue benchmarks as proposed by the FCC. BellSouth, GTE, and CBT do not support the use of a revenue benchmark that includes revenues from non-supported services, i.e., toll, vertical and discretionary services. They argue these services currently provide implicit support for universal service. However, including revenues from services in the revenue benchmark will serve to include implicit support levels in an explicit support mechanism. These implicit support levels cannot be sustained in a competitive environment. Therefore, only the costs and revenues generated from supported services should be calculated.<sup>35</sup> GTE specifically argues that the implicit

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<sup>33</sup> FCC Order at paragraph 200.

<sup>34</sup> Id. at paragraphs 257-267.

<sup>35</sup> See, generally, GTE March 28, 1998 Brief at 5-7, and BellSouth March 27, 1998 Brief at 43-45, and CBT March, 1998 Brief at 2. In addition BellSouth and GTE argue that preserving the implicit subsidy levels in access, vertical and discretionary service rates is contrary to the 1996 Act, Section 254(e).

subsidies inherent in toll, access, and vertical services should be removed and made explicit.<sup>36</sup>

The Commission agrees with the FCC in principle and adopts the use of a revenue benchmark for determining universal service support. The Commission also agrees that other revenues, in addition to local service retail revenues, should be included in the revenue benchmark calculation. The benchmark should include all revenues that a new entrant may expect to obtain from market entry. The USF will serve its function, supporting carriers serving in high-cost areas, by contributing only monies equal to costs in excess of revenue benchmarks.

However, the Commission finds that a revenue benchmark reflecting state-specific revenues is preferable to a national average revenue benchmark, provided that components included for cost and revenue calculations are matched. The ILECs provided the Commission with summary pages of their respective billing analysis for each wirecenter with inadequate support. The Commission is aware that selection of the proper revenue benchmark is equally important to selecting the proper cost model and inputs. With insufficient backup data to verify the ILECs' work results, the Commission will not adopt the results as filed. Therefore, the Commission will require the ILECs to submit detailed billing analyses for the Commission to verify and calculate a revenue benchmark. The Commission will schedule an informal conference with BellSouth, GTE and CBT to discuss revenue benchmark construction methodology.

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<sup>36</sup> Id. at 6. See BellSouth March 27, 1998 Brief at 45.

While ILECs and other eligible carriers change service prices, introduce new services, and gain or lose customers, the revenue benchmark can change. In order to assure that the proper amount of USF subsidy is being remunerated to eligible carriers, quarterly monitoring revenue reports should be submitted to the USF administrator.

#### FUND SIZE

Once a universal service cost model has been selected and populated with the appropriate inputs, and the level of customer aggregation has been determined, then the cost of providing the supported services can be calculated. These costs are then compared to the relevant revenue benchmark to determine how much money is required to be collected. CBT calculated its USF needs to be \$28 million;<sup>37</sup> GTE calculated its USF needs to be \$145.3 million;<sup>38</sup> and BellSouth calculated its USF needs to be \$209.4 million.<sup>39</sup>

Based on the Commission's findings, the state high-cost fund size is \$98 million. The Commission calculates the intrastate high cost USF for CBT to be \$7 million, for

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<sup>37</sup> CBT March, 1998 Brief at 3. CBT calculated total residential high-cost support by using an internally generated cost model to determine the cost of a residential line and used a wirecenter specific benchmark.

<sup>38</sup> GTE March 27, 1998 Brief at 14. This amount is calculated based on BCPM using GTE's calculated wirecenter specific revenue benchmark for the state portion and the \$31 residential and \$51 business revenue benchmarks for the federal portion. This results in a federal high cost fund requirement of \$23.8 million and a state high cost fund requirement of \$121.5 million.

<sup>39</sup> BellSouth March 1998 Brief at 2. This amount is calculated based on the BCPM using BellSouth's calculated wirecenter specific revenue benchmark for the state portion and the \$31 residential and \$51 business revenue benchmarks for the federal portion. This results in a federal high cost fund requirement of \$30.5 million and a state high cost fund requirement of \$178.9 million.

GTE to be \$36 million, and for BellSouth to be \$55 million. This includes all inputs previously described. The benchmarks of \$31 for residential lines and \$51 for business lines were used in the calculation. The fund provides support for primary residential lines and single business lines.

### FUND ASSESSMENTS

There are four broad avenues to collect USF monies: (1) impose a subscriber line charge ("SLC") on a flat-rate basis; (2) impose a SLC on a percentage of service billed; (3) assess all telecommunications providers based on retail revenues; or (4) create explicit universal service usage sensitive network access rate elements.

The USF cost model estimates that the cost of providing basic local service for selected wirecenters is less than the revenue generated for those wirecenters. In some cases, there are substantial differences between costs and revenues. Since passage of the 1996 Act, it has been a central tenet of national policy to avoid permitting basic local residential rates to increase as a result of introducing competition into the local telephone market.<sup>40</sup> Meanwhile, many long-distance carriers have passed on to their customers monthly charges which account for the FCC-imposed primary interexchange carrier charge ("PICC") to fund the federal universal service fund.

#### Assessment to Customers

The Commission may assess customers a subscriber line charge. The assessment may be either flat-rated or based upon a percentage of intrastate revenues.

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<sup>40</sup> The FCC has declared that "we must maintain rate for basic residential service at affordable levels. We believe that the rates for this service are generally at affordable levels today." FCC Order at 2.

A flat-rated SLC imposes a relatively greater burden on customers that is not commensurate with their actual use of network functions and services. These customers may include low-income subscribers. Assessing customers a SLC based on a percentage of their intrastate bill means that those customers who use network functions and services will pay relatively more in universal service support. A percentage SLC creates a more reasonable system by assessing heavy users a share of the cost based on proportionate use. It would be levied much like a sales tax as a line item on customers' bills.

#### Billing All Telecommunications Carriers

A third option to collect monies into the USF is to place an assessment on all telecommunications providers operating in Kentucky, including wireless carriers, based on revenues.<sup>41</sup> This option was the Commission's initial choice in Administrative Case No. 355.<sup>42</sup> There are distinct possibilities that such direct assessments would and should be passed directly onto consumers in the form of lump sum monthly charges.<sup>43</sup> It is unreasonable to assume that telecommunications provider shareholders should absorb USF assessments. It is reasonable to assume and expect that USF assessments will be passed onto consumers. To the extent that USF assessments are passed on to consumers in the form of lump sum monthly fees, then consumers are left with another, albeit indirectly assessed, SLC.

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<sup>41</sup> See Bluegrass Cellular Corporation, March 1998 Brief at 1.

<sup>42</sup> Administrative Case No. 355, Order dated September 26, 1996 at 36.

<sup>43</sup> IXCs are passing the FCC's PICC charges directly to their customers.

If the Commission creates its own SLC as part of recovering universal service costs, then the combination of these two forms of universal service assessment would mean that most, if not all, of the universal service costs could be recovered as lump sum monthly surcharges. This may perpetuate or exacerbate the cross-subsidies existing between urban and rural customers.

#### Universal Service Network Access Rate Elements

The final method of assessing universal service costs to telecommunications providers and, eventually to consumers, is to create universal service charges as explicit usage sensitive network access rate elements. Minutes of use ("MOU") have been growing quickly, much more quickly than additional line growth. Growth in MOU represents consumers placing greater value on available network services and using these services with ever greater frequency and duration. To the extent that implicit subsidies embedded in network charges are eliminated and are not replaced with explicit subsidies, consumers who derive value from actual network usage, over and above simply having access to network services, will pay rates that cover cost. However, these customers will not be contributing any additional amounts toward maintaining or expanding the local network, as was the case under the prior method of subsidization. Since it is the local network which makes all telecommunications services possible, it is arguable that those who derive value from actual network usage should be required to contribute more toward network support than those who do not use the network as heavily.

Also, eliminating implicit subsidies from network charges without replacing them with an explicit subsidy will mean that some users of the local network, who are currently contributing toward local network maintenance and upgrade, i.e., those who make out-of-region, out-of-state toll calls, and wireless calls terminating on the local network, will cease their contributions. These users of the local network should continue their contributions after the creation and implementation of the USF.

#### Commission Decision

The Commission finds that it is appropriate to collect universal service funds through a combination of an assessment to customers based on the percentage of services billed (i.e. a percentage SLC) and usage sensitive network access rate elements. Both methods should be designed to collect half of the total assessment. That is, the total assessment of the percentage SLC and of network access rate elements for high-cost support should be \$49 million each. This method should reasonably apportion the expense. Final details of the assessment collection will be addressed in this proceeding in the coming months.

#### ELIMINATION OF WINDFALLS

BellSouth argues that, "[c]oncurrent with the establishment of the USF, each non-rural LEC receiving universal service support . . . should reduce rates of services which currently provide implicit support in an amount equal to the difference between funds received from the Fund [USF] and payments into the Fund," and recommends that each



non-rural LEC submit a plan reducing rates that currently contain implicit support to the Commission after the Commission has addressed all universal service issues.<sup>44</sup>

The Commission agrees there should be a reduction in the implicit support provided by non-supported services. The reduction in implicit support inherent in non-supported services should equal the net contribution received from the USF. As discussed above, telecommunications carrier revenues will not be assessed for universal service support. Therefore, service rates containing implicit universal service support will be reduced by the full amount of universal service high cost support received from the USF.

Under traditional regulatory rules and prior to the 1996 Act, specific implicit urban to rural and business to residential subsidies were established through traditional rate cases. This amounted to setting residential and business rates for the various rate groups in Kentucky.<sup>45</sup> The USF is intended to help eliminate these implicit subsidies and replace them, as needed, with explicit subsidies. It is clear that the FCC is concerned

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<sup>44</sup> BellSouth March 27, 1998 Brief at 48. GTE also argues that implicit universal service support provided by non-supported services should be removed and made explicit. GTE March 28, 1998 Brief at 6.

<sup>45</sup> During this period, when the Commission established the implicit business to residential and implicit urban to rural subsidies for basic local service, the Commission also established a subsidy, a non-traffic sensitive ("NTS") rate element embedded in access charges. Thus, there is also a toll to local subsidy.

that neither ILECs nor customers be over-burdened or over-compensated as a result of implementing a USF.<sup>46</sup>

Windfall revenue gains could arise when the state USF is implemented and ETCs are receiving explicit universal service subsidies for every verified rural, insular and high cost customer if implicit subsidies have not been adjusted accordingly.

Using the HAI Model, the traditional implicit business to residential and urban to rural subsidies can be identified on a wirecenter basis. If there were vigorous facilities-based competition in these areas, market forces could be expected to eliminate implicit subsidies. However, at this point, the extent of facilities-based competition is unclear. At the time when the state USF is implemented, the implicit subsidies must be eliminated to the extent that there are windfall revenue gains to ILECs. The Commission realizes that eliminating part or all of the implicit subsidy embedded in urban business rates and urban residential rates will affect those customers most likely to see local competition

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<sup>46</sup> The FCC states "[f]ailure to include all revenues [for revenue benchmark calculations] received by the carrier could result in substantial overpayment to the carrier." FCC Order at paragraph 200. "We believe that, as competition develops, states may be compelled by marketplace forces to convert [state-determined intrastate] implicit support to explicit, sustainable mechanism consistent with Section 254(f) [of the Act]." FCC Order at paragraph 202. "Our determinations of forward-looking economic cost for the purpose of determining federal universal service support for rural, insular, and high cost care must be coordinated with these [similar on-going] state proceedings. Failure to do so would risk under funding universal service or overcompensating carriers in some areas." FCC Order at paragraph 205.

in the near future.<sup>47</sup> Were it not for the immediate need to eliminate any windfall revenues resulting from changing subsidy mechanisms, the Commission would allow market forces to dictate the rate of change in local exchange rate levels. The Commission shall schedule an informal conference with CBT, BellSouth, and GTE to address these issues and to ensure a seamless transition to the new support mechanism.

As in the case of ILECs, CLECs should not unduly profit by receiving universal service support. It is clear that the FCC's intent is neither to erect barriers of entry into any specific geographic local market,<sup>48</sup> nor to create an artificial incentive for entry.<sup>49</sup> The FCC Order discusses the need for states to coordinate UNE cost estimations and proceedings with universal service cost proceedings.<sup>50</sup> The FCC states, "[t]his would reduce duplication and diminish arbitrage opportunities that might arise from inconsistencies between the methodologies for setting unbundled network elements and determining universal service support levels" and "[w]e wish to avoid situations in which, because of different methodologies . . . a carrier could receive support for the provision

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<sup>47</sup> This action is fully consistent with the 1996 Act, Section 254, in that the Commission is working to make implicit universal service support as explicit as possible. This position is also taken by the FCC where it concluded that it has the authority to "[c]raft a phased-in plan that relies in part on prescriptive and in part on competition to eliminate subsidies in the prices for various products sold in the market for telecommunications services." FCC Order at paragraph 246.

<sup>48</sup> FCC Order at paragraph 165.

<sup>49</sup> Id. at paragraph 164, including footnote 417, and paragraphs 287-288, including footnote 746.

<sup>50</sup> Id. at paragraph 251.

of universal service that differs from the rate it pays to acquire access to the unbundled network elements needed to provide universal service."<sup>51</sup> Actions that the Commission is taking in this Order necessitate revisiting UNE cost estimates determined in prior cases upon the expiration of the interconnection agreements specifying UNE prices.<sup>52</sup> The FCC acknowledges that there may be "difficulties inherent in using state cost studies designed for pricing [UNEs] for universal service purposes."<sup>53</sup> The Commission is aware of these concerns and intends to work diligently to minimize the creation of uneconomic barriers to local market entry, as well as to ensure that all eligible service providers receive the correct amount of universal service support.<sup>54</sup>

The elimination of windfall revenues is not synonymous with rate restructuring per se. Section 254(e) of the 1996 Act provides that "[a] carrier that receives such support shall use that support only for the provision, maintenance, and upgrading of facilities and services for which the support is intended."<sup>55</sup>

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<sup>51</sup> FCC Order at paragraphs 232-251. Although footnote 669 sets out a specific illustration of how a CLEC could arbitrage UNE prices and universal service support, the actual situation would not occur. The FCC has prohibited eligible CLECs from receiving universal service support in excess of the cost to obtain UNEs. See FCC Order at paragraph 287.

<sup>52</sup> At the very least, UNE cost estimates should be recalculated on a geographically deaveraged basis. The FCC at Section VII(B)(3)(c) of the Interconnection order discusses geographic deaveraging and at paragraph 765, "concludes that three zones are presumptively sufficient to reflect geographic cost differences in setting rates for interconnection and unbundled elements . . . ."

<sup>53</sup> FCC Order at paragraph 251, footnote 670.

<sup>54</sup> Carriers providing service solely through resale are not eligible carriers. *Id.* at paragraph 290.

<sup>55</sup> 47 U.S.C. § 254(e).

In order that carriers do not receive a "windfall gain," they must remove the amount they receive from the USF from their rates. Thus, the subsidy that has been collected on an implicit basis will now be collected explicitly from the fund. Rate reductions to offset the explicit subsidies will be determined over the next few months. Elimination of NTS is a priority and will be considered along with the elimination of other implicit subsidies. Proposals for such reductions will be discussed at the informal conference scheduled herein.

#### PRIMARY ACCESS LINE SUPPORT

In Administrative Case No. 355, the Commission determined on a preliminary basis that USF support should be calculated on the number of single (first line only) residential lines served in rural areas.<sup>56</sup> Evidence presented in this case necessitates changing this determination. No longer will universal support be based on rural residential access lines only.

The Commission believes that focusing on providing access to the public switched network and the available services should be the primary goal of the USF.<sup>57</sup> In situations where there are two or more access lines being utilized at the same residence that are being paid for by separate entities, one might contend that only one line per residence should receive a USF subsidy. Universal service is defined in terms of having access

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<sup>56</sup> Administrative Case No. 355, Order dated September 26, 1996 at 38.

<sup>57</sup> Section 254(b) of the Act establishes the principle that "consumers . . . should have access to telecommunications and information services . . . ." Also see the FCC Order at paragraph 66, "[u]niversal service must encompass the ability to use the network, including the ability to place calls at affordable rates. We find that both access to and use of the public switched network at rates that are "just, reasonable and affordable, are necessary to promote the principles embodied in Section 254(b)(1)." The Commission also agrees with the Joint Board recommended decisions, as discussed in the FCC Order at paragraphs 94-96.

to the network and available network services, and not in the technical terms of which person is actually responsible for paying for the one or more access lines utilized in the same place of residence.

The Commission finds that during the initial period of implementing and operating the USF, it is appropriate to support only single connection residences and businesses. The Commission understands that this may present additional enforcement or tracking problems for ETCs.

#### ELIGIBLE TELECOMMUNICATIONS CARRIERS

The FCC addresses the issues of carriers eligible for USF support.<sup>58</sup> The Commission agrees with this discussion and concurs in the findings. Also, all existing ILECs have been designated as ETCs.<sup>59</sup> The Commission again addresses the issue here as a point of clarification concerning wireless carriers. The FCC makes it clear that a wireless carrier can be designated as an ETC that is eligible to receive universal service support as long as it satisfies all the criteria under Section 214(e)(1) of the Act.<sup>60</sup> At such time when this Commission finds that any of the state wireless carriers satisfy all the necessary ETC criteria, that carrier will be designated as an ETC and will begin receiving universal service support according to FCC guidelines.

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<sup>58</sup> See, generally, FCC Order at paragraphs 127-198.

<sup>59</sup> Administrative Case No. 360, Order dated November 26, 1997 at 3. The FCC Order at paragraph 178 discusses the eligibility of resellers and concludes that "pure" resellers using no facilities of their own are not eligible to receive USF support.

<sup>60</sup> FCC Order at paragraph 145 at 83. Also, in paragraph 146, the FCC goes on to say that a wireless carrier need not be the customer's primary carrier to receive support.

### ADDITIONAL LOW-INCOME SUPPORT

The Commission has previously ruled that the state would not provide any additional funding for low-income programs.<sup>61</sup> Federal support will be provided to low-income subscribers eligible for Medicaid, food stamps, supplemental security income, federal public housing assistance, and low-income home energy assistance programs.<sup>62</sup> The FCC had given the states the option to supplement the Lifeline support provided by the federal program. The federal program would then in turn provide 50 percent of the state's contribution per line, up to \$1.75. That is, the state could provide an additional \$3.50 per line and the federal program would provide an additional \$1.75.

The Commission has decided that the USF will fund additional support for the Lifeline program with an additional \$3.50 per line to be eligible to receive an additional \$1.75 from the federal program. The Commission has estimated that this will create an additional \$3 million revenue requirement for the USF. The Metro Human Needs Alliance ("MHNA") argues that the Commission should fund low-income subscribers to the maximum extent.<sup>63</sup> MHNA also asserts that persons whose income is below 200 percent of the federal poverty guideline should receive benefits.<sup>64</sup> The Commission disagrees. Such a guideline would inject too much subjectivity into the process and would create administrative difficulty in fund administration.

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<sup>61</sup> Administrative Case No. 360, Order dated November 26, 1997.

<sup>62</sup> FCC Order at paragraph 374.

<sup>63</sup> MHNA March 1998 Brief at 1.

<sup>64</sup> Id.

### SCHOOLS, LIBRARIES, AND HEALTH CARE

The Commission has previously adopted the federal discount matrix established by the FCC for schools and libraries.<sup>65</sup> The Commission affirms that decision in this Order. No information has been provided to the Commission that establishes a need for additional support. Moreover, no quantifiable need for telemedicine support has been established. However, the Commission will continue to monitor these issues.

### FUND ADMINISTRATION

Parties requested that the USF be administered by a neutral third-party rather than by a support recipient. Accordingly, the Commission has selected a governmental agency for the fund administration. This will reduce the administration costs well below what would be incurred through use of a for-profit administrator. The Commission will enter into an interagency agreement with the Finance and Administration Cabinet for the administration of the USF. Moreover, the Commission will actively assist in the USF administration process and may consult with the National Exchange Carrier Association in regard to establishing the USF.

### CONCLUSION

The decisions announced in this Order form a beginning for USF implementation in Kentucky. Over the next few months, the Commission will consider proposals by BellSouth, GTE, and CBT for rate reductions equal to the net amount to be received by each of them from the USF. These and other issues must be resolved in order to begin the USF on January 1, 1999.

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<sup>65</sup> Administrative Case No. 360, Order dated June 17, 1997.



The Commission, having considered the evidence, and having been otherwise sufficiently advised, HEREBY ORDERS that:

1. A statewide perspective shall be taken in the design of the Kentucky universal service mechanism and universal service costs shall be calculated at the wirecenter level.
2. The HAI Model shall be used to establish the Kentucky USF.
3. The inputs contained in the Appendices attached to this Order shall be used in calculating universal service support.
4. The federal benchmark shall be used to calculate universal service support until a state-specific benchmark can be established.
5. The high cost support fund size for Kentucky is \$98 million.
6. Universal service support shall be collected through a combination of an assessment to customers based upon a percentage of services billed and usage sensitive network access rate elements. Each method shall be designed to collect half of the total assessment.
7. BellSouth, GTE, and CBT shall reduce rates for non-supported services by the amount of the high cost support they receive from the USF. These rate reductions to offset the explicit subsidies shall be determined in this proceeding over the next few months.
8. Universal service support shall be provided only for single connection residences and businesses.

9. Additional low-income support shall be provided to low-income subscribers as specified herein, with an estimated increase of \$3 million annually to the USF.

10. The Finance and Administration Cabinet shall administer the USF through an interagency agreement with the Commission.

11. Within 90 days of the date of this Order, any party may comment on the use of county boundaries as an alternative to the wirecenter designated serving area as specified herein.

12. GTE, BellSouth, and CBT shall each file a billing analysis for all services, and other relevant information necessary to calculate a revenue benchmark, no later than June 23, 1998.

13. ILECs and carriers shall file information relevant to develop the initial USF assessment by no later than June 23, 1998.

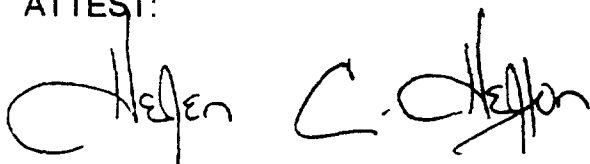
14. ETCs shall submit quarterly reports regarding revenue benchmark calculation to the USF administrator beginning April 1, 1999.

15. An informal conference is hereby scheduled for June 30, 1998 at 9:00 a.m., Eastern Daylight Time, in Hearing Room 1 of the Commission's offices at 730 Schenkel Lane, Frankfort, Kentucky to discuss the reduction of explicit subsidies, revenue benchmark construction methodology, and information necessary to develop the initial USF assessment.

Done at Frankfort, Kentucky, this 22nd day of May, 1998.

By the Commission

ATTEST:

A handwritten signature in black ink, appearing to read "Helen C. Coffey". The signature is written in a cursive, flowing style. The first name "Helen" is written with a large, open 'H'. The middle initial "C." is followed by a period. The last name "Coffey" is written with a large, stylized 'C' and a long, sweeping tail that extends to the right.

Executive Director

## APPENDICES

APPENDICES TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE  
COMMISSION IN ADMINISTRATIVE CASE NO. 360 DATED MAY 22, 1998.

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Appendix A  
Worksheet 1

Universal Service Wirecenter Summary Sheet

Company								
Cincinnati Bell - KY	\$ 9,722,131	\$ -	\$ 30,434	\$ -	\$ -	\$ 9,752,565	\$ 2,438,141	\$ 7,314,424
Contel of Ky Inc dba GTE Kentucky	\$ 20,898,688	\$ -	\$ 63,780	\$ -	\$ -	\$ 20,962,468	\$ 5,240,612	\$ 15,721,836
GTE South Inc - Kentucky	\$ 27,010,488	\$ -	\$ 155,522	\$ -	\$ -	\$ 27,166,010	\$ 6,791,503	\$ 20,374,508
BellSouth - KY	\$ 72,688,003	\$ -	\$ 438,459	\$ -	\$ -	\$ 73,126,462	\$ 18,281,818	\$ 54,844,647
<b>Totals</b>	<b>\$ 130,319,309</b>	<b>\$ -</b>	<b>\$ 688,175</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 131,007,485</b>	<b>\$ 32,751,871</b>	<b>\$ 98,255,614</b>

Universal Service Density Zone Summary Sheet

Company					
Cincinnati Bell - Ky	104,256	126,318	11,181	3,328	48,387
Comcast of Ky Inc dba GTE - Ky	82,325	98,448	5,828	1,336	16,172
GTE South Inc - Ky	408,412	271,812	22,844	17,114	92,845
BellSouth - Ky	1,113,872	737,481	65,254	31,228	248,977
Totals	1,704,864	1,234,061	105,018	51,006	387,386
					17,287

Cincinnati Bell - Ky	9,887,331	9,887,331	787,477	30,448	24,173	9,887,164
Comcast of Ky Inc dba GTE - Ky	22,336,636	22,336,636	2,080,843	105,068	848,442	28,827,881
GTE South Inc - Ky	30,256,976	30,256,976	2,521,565	308,888	1,172,191	34,286,321
BellSouth - Ky	78,882,888	78,882,888	6,577,888	425,539	2,412,848	88,888,874
Totals	140,163,133	140,163,133	11,987,773	877,919	4,652,338	166,878,448

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Cincinnati Bell - Ky	9,887,331	9,887,331	787,477	30,448	24,173	9,887,164
Comcast of Ky Inc dba GTE - Ky	22,336,636	22,336,636	2,080,843	105,068	848,442	28,827,881
GTE South Inc - Ky	30,256,976	30,256,976	2,521,565	308,888	1,172,191	34,286,321
BellSouth - Ky	78,882,888	78,882,888	6,577,888	425,539	2,412,848	88,888,874
Totals	140,163,133	140,163,133	11,987,773	877,919	4,652,338	166,878,448

## COST OF NETWORK ELEMENTS

Kentucky  
BellSouth-Ky

Loop elements	0-5 lines/sq mi	6-100 lines/sq mi	100-200 lines/sq mi	200-450 lines/sq mi	450-650 lines/sq mi	650-2550 lines/sq mi	2550-5000 lines/sq mi	5000-10000 lines/sq mi	>10000 lines/sq mi	Totals
NID										
Annual Cost	\$ 45,126	\$ 2,000,083	\$ 530,641	\$ 1,357,429	\$ 418,980	\$ 2,802,767	\$ 1,672,925	\$ 555,102	\$ 188,372	\$ 10,261,406
Unit Cost/month	0.82	0.77	0.89	0.70	0.69	0.66	0.65	0.52	0.50	0.68
Loop Distribution (DLC)										
Annual Cost	\$ 2,564,070	\$ 92,401,982	\$ 9,138,895	\$ 19,949,798	\$ 4,055,553	\$ 19,873,382	\$ 8,034,486	\$ 2,134,486	\$ 352,210	\$ 158,504,852
Unit Cost/month	46.78	25.48	13.95	11.91	9.43	7.26	5.66	4.19	4.42	14.13
Loop Distribution (non-DLC)										
Annual Cost	\$ -	\$ 1,047,746	\$ 891,312	\$ 1,807,908	\$ 1,197,222	\$ 7,370,205	\$ 6,425,481	\$ 1,521,027	\$ 716,097	\$ 20,976,999
Unit Cost/month	-	7.91	7.87	7.03	6.86	6.18	5.75	2.88	2.44	5.45
Loop Distribution (all)										
Annual Cost	\$ 2,564,070	\$ 93,449,728	\$ 10,030,208	\$ 21,757,706	\$ 5,252,775	\$ 27,243,587	\$ 14,459,947	\$ 3,655,513	\$ 1,088,307	\$ 179,481,851
Unit Cost/month	46.78	24.86	13.05	11.26	8.69	6.94	5.64	3.39	2.86	11.92
Loop Concentration (DLC)										
Annual Cost	\$ 2,050,261	\$ 53,698,490	\$ 3,980,490	\$ 8,521,326	\$ 2,184,859	\$ 13,430,703	\$ 6,884,224	\$ 2,530,417	\$ 425,700	\$ 93,697,472
Unit Cost/month	37.41	14.81	6.08	5.09	5.08	4.91	4.74	4.97	5.34	8.38
Loop Concentration (non-DLC)										
Annual Cost	\$ -	\$ 37,447	\$ 29,743	\$ 65,650	\$ 40,271	\$ 275,986	\$ 251,038	\$ 116,547	\$ 55,504	\$ 872,167
Unit Cost/month	-	0.28	0.26	0.26	0.23	0.23	0.22	0.21	0.19	0.23
Loop Concentration (all)										
Annual Cost	\$ 2,050,261	\$ 53,736,937	\$ 4,020,233	\$ 8,586,976	\$ 2,225,130	\$ 13,706,689	\$ 7,115,262	\$ 2,646,965	\$ 481,204	\$ 94,569,639
Unit Cost/month	37.41	14.29	5.23	4.44	3.68	3.49	2.77	2.46	1.29	8.28
Loop Feeder (DLC)										
Annual Cost	\$ 2,169,335	\$ 40,523,942	\$ 1,873,665	\$ 2,991,378	\$ 665,526	\$ 3,358,268	\$ 1,535,529	\$ 635,085	\$ 84,520	\$ 53,837,249
Unit Cost/month	39.58	11.17	2.88	1.79	1.55	1.23	1.08	1.25	1.08	4.80
Loop Feeder (non-DLC)										
Annual Cost	\$ -	\$ 546,130	\$ 374,588	\$ 898,794	\$ 520,555	\$ 3,374,116	\$ 3,023,539	\$ 1,224,983	\$ 699,018	\$ 10,659,731
Unit Cost/month	-	4.12	3.31	3.49	2.98	2.83	2.71	2.16	2.38	2.77
Loop Feeder (all)										
Annual Cost	\$ 2,169,335	\$ 41,070,073	\$ 2,248,261	\$ 3,888,172	\$ 1,186,081	\$ 6,732,384	\$ 4,559,068	\$ 1,860,068	\$ 783,538	\$ 64,496,980
Unit Cost/month	39.58	10.92	2.93	2.01	1.98	1.71	1.78	1.73	2.10	4.28
Total Loop (DLC)										
Annual Cost	\$ 6,828,792	\$ 189,413,804	\$ 15,455,449	\$ 32,639,309	\$ 7,203,839	\$ 38,475,129	\$ 17,378,526	\$ 5,582,508	\$ 902,708	\$ 313,859,964
Unit Cost/month	124.59	52.23	23.59	19.49	18.75	14.07	12.00	10.92	11.32	27.99
Total Loop (non-DLC)										
Annual Cost	\$ -	\$ 1,733,218	\$ 1,373,894	\$ 2,950,974	\$ 1,879,007	\$ 11,810,288	\$ 10,428,675	\$ 3,155,140	\$ 1,818,713	\$ 34,949,911
Unit Cost/month	-	13.08	12.13	11.48	10.76	9.91	9.33	5.56	5.52	9.08
Total Loop (all)										
Annual Cost	\$ 6,828,792	\$ 191,146,822	\$ 16,829,343	\$ 35,590,283	\$ 9,082,946	\$ 50,285,417	\$ 27,807,202	\$ 8,717,648	\$ 2,521,421	\$ 348,809,874
Unit Cost/month	124.59	50.85	21.90	18.42	15.02	12.80	10.84	8.10	6.76	23.16
Total lines	4,568	313,274	64,029	161,016	50,383	327,303	213,791	89,739	31,086	1,255,189
Total lines served by DLC	4,568	302,229	54,588	139,591	35,837	227,959	120,878	42,440	6,647	934,535

	Annual Cost	Units	Unit Cost
End office switching	\$ 57,830,207		
Line Port	17,349,089	1,113,972 switched lines	\$ 1.30 per line/month
Non-Line Port	40,481,208	22,775,402,453 actual minutes	\$ 0.00176 per actual minute (for rate per DEM, see "Cost detail" sheet)
Signaling network elements	\$ 2,203,986		
Links	342,832	554 links	\$ 51.53 per link per month
STP	1,160,264	22,795,579,838 TCAP+ISUP msgs	\$ 0.00005 per signaling message
SCP	703,869	6,246,220,000 TCAP queries	\$ 0.00013 per query
Transport network elements			
Dedicated			
Sw+Sp Transport	\$ 12,818,087	167,312 trunks	\$ 6.36 per DS-0 equivalent per month
Switched	1,981,523	25,985 trunks	\$ 0.00084 per minute
Special	10,826,544	141,317 trunks	\$ 4.12 per DS-0 equivalent per month
Transmission Terminal	8,267,728	167,312 trunks	\$ 0.00041 per minute
Common			
Transport	\$ 3,026,865	2,004,983,632 minutes	\$ 0.00177 per minute per leg (orig or term)
Transmission Terminal	1,277,098	2,004,983,632 minutes	\$ 0.00075 per minute
Direct			
Transport	\$ 6,471,072	6,057,369,155 minutes	\$ 0.00107 per minute
Transmission Terminal	2,907,189	6,057,369,155 minutes	\$ 0.00048 per minute
Tandem switch	\$ 1,577,524	1,665,839,562 minutes	\$ 0.00093 per minute
Operator systems	\$ 6,807,939		
Public Telephones	\$ 3,111,748		
Total (w/ Public)	\$ 455,112,408		
Total cost of switched network elements (w/o Public)	\$ 26.55 per line/month		



**COST SUMMARY**

Kentucky  
BellSouth-Ky

			1	2	1 + 2	3	1 + 2 + 3	
NID	\$ 44,980,028	2.7%	\$ 6,915,244	\$ 827,532	\$ 7,742,776	\$ 2,410,784	\$ 10,153,560	\$ 10,217,329
Distribution (DLC)	596,483,414	35.5%	91,594,255	28,258,234	119,852,489	37,317,169	157,169,658	157,824,012
Distribution (non-DLC)	79,475,876	4.7%	12,190,075	3,610,535	15,800,609	4,919,664	20,720,273	20,886,894
Distribution (all)	675,959,289	40.2%	103,784,330	31,868,768	135,653,098	42,236,833	177,889,931	178,710,907
Concentrator (DLC)	334,128,032	19.9%	64,929,969	5,902,954	70,832,923	22,054,479	92,887,402	93,295,005
Concentrator (non-DLC)	3,844,900	0.2%	591,116	65,553	656,669	204,460	861,129	868,421
Concentrator (all)	337,972,932	20.1%	65,521,086	5,968,507	71,489,592	22,258,939	93,748,531	94,163,426
Feeder (DLC)	217,776,944	13.0%	32,134,761	8,611,270	40,746,031	12,686,649	53,432,680	53,605,998
Feeder (non-DLC)	44,910,915	2.7%	6,769,727	1,257,224	8,026,951	2,499,265	10,526,216	10,613,943
Feeder (all)	262,687,859	15.6%	38,904,489	9,868,493	48,772,982	15,185,914	63,958,896	64,219,940
End Office Switching	194,670,121	11.6%	30,766,306	10,864,582	41,630,888	10,225,449	51,856,337	57,581,893
Signaling	7,574,777	0.5%	1,182,289	413,219	1,595,508	383,876	1,979,384	2,197,506
Dedicated Transport	53,182,082	3.2%	7,847,726	1,732,540	9,580,266	1,933,752	11,514,019	12,763,009
Dedicated Transport Transmission	27,990,967	1.7%	5,500,587	495,440	5,996,027	1,420,118	7,416,146	8,232,215
Direct Transport	27,272,320	1.6%	4,024,510	886,225	4,910,735	906,205	5,816,940	6,443,277
Direct Transport Transmission	10,120,469	0.6%	1,988,803	179,132	2,167,935	443,202	2,611,138	2,894,702
Common Transport	12,814,949	0.8%	1,891,116	415,605	2,306,721	414,738	2,721,458	3,013,884
Common Transport Transmission	4,482,965	0.3%	880,961	79,348	960,309	187,186	1,147,495	1,271,611
Tandem Switching	5,127,563	0.3%	771,772	358,279	1,130,050	284,197	1,414,248	1,570,748
Operator Systems	7,362,151	0.4%	1,338,274	3,691,680	5,029,954	1,073,409	6,103,363	6,778,696
Public Telephone	8,307,564	0.5%	1,793,411	471,159	2,264,570	534,162	2,798,732	3,111,748
<b>Total Network Cost</b>								
Total	\$ 1,680,506,036	100%	\$ 273,110,904	\$ 68,120,509	\$ 341,231,413	\$ 99,898,764	\$ 441,130,177	\$ 453,170,889

\* Post sharing